

**Non-Defense
Environmental
Services**

**Non-Defense
Environmental
Services**

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Non-Defense Environmental Services

Proposed Appropriation Language

For Department of Energy expenses necessary for non-defense environmental services activities conducted as a result of nuclear energy research and development activities that indirectly support the accelerated cleanup and closure mission at environmental management sites, including the purchase, construction, and acquisition of plant and capital equipment and other necessary expenses, \$291,296,000, to remain available until expended.

Explanation of Change

None.

Non-Defense Environmental Services

Funding Profile by Program

(dollars in thousands)

	FY 2003 Comparable Appropriation	FY 2004 Original Appropriation	FY 2004 Adjustments	FY 2004 Comparable Appropriation	FY 2005 Request
Non-Defense Environmental Services					
Non-Closure Environmental					
Activities.....	126,009	276,245	-4,425	271,820	245,123
Community and Regulatory					
Support.....	20	1,034	-4	1,030	90
Environmental Cleanup Projects.....	35,823	43,842	-253	43,589	46,083
Office of Legacy Management.....	0	28,347	-28,347	0	0
Subtotal, Non-Defense Environmental					
Services.....	161,852	349,468	-33,029 ^a	316,439	291,296
Use of Prior Year Balances.....	0	-10,000	0	-10,000	0
Total, Defense Environmental Services	161,852	339,468	-33,029	306,439	291,296

Public Law Authorizations:

Public Law 95-91, "Department of Energy Organization Act, 1977"

Public Law 103-62, "Government Performance and Results Act of 1993"

Public Law 108-137, "Energy and Water Development Appropriations Act, 2004"

^{a/} Reflects the following:

- Rescission reduction of \$2,003,000;
- Transfer of \$1,479,000 to the National Nuclear Security Administration for the off-site source recovery program;
- Transfer of \$1,358,000 to the Office of Legacy Management for the payment of pensions and benefits to former contractor personnel at the Pinellas Site;
- Comparability adjustment of \$28,189,000 associated with the Office of Legacy Management.

Mission

The mission of the Office of Environmental Management is to accelerate risk reduction and cleanup of the environmental legacy of the nation's nuclear weapons program and government-sponsored nuclear energy research.

The Non-Defense Environmental Services appropriation indirectly supports the primary mission of accelerated risk reduction and closure. This appropriation also funds non-defense service activities performed by the Environmental Management program for other Department goals and objectives.

Benefits

This appropriation provides funding for non-defense related activities that indirectly support the primary EM mission of accelerated risk reduction and environmental cleanup of sites contaminated as a result of nuclear research. The appropriation also funds services provided by EM in support of other

**Non-Defense Environmental Services/
Non-Closure Environmental Activities**

FY 2005 Congressional Budget

Departmental missions and objectives to include cleanup and management of the nation's three gaseous diffusion plants and the construction and operation of two depleted uranium hexafluoride conversion facilities.

As the EM cleanup progresses, the risk and hazard to human health and the environment is greatly reduced. In addition, as cleanup is completed and sites are closed, the financial resources needed to maintain site infrastructure will no longer be required. These indirect support activities ensure that EM's primary cleanup mission and other DOE missions and objectives proceed in an efficient and responsible manner.

The Environmental Management program is responsible for managing and addressing the environmental legacy resulting from the production of nuclear weapons and nuclear research. Environmental Management's responsibilities include facilities and areas at 114 geographic sites. These sites are located in 31 states and one territory and occupy an area equal to that of Rhode Island and Delaware combined – or about two million acres.

This appropriation includes three programs: Non-Closure Environmental Activities; Community and Regulatory Support; and Environmental Cleanup Projects. The FY 2005 Request for the Non-Defense Environmental Services appropriation is \$291,296,000, a decrease of \$25,143,000, from the comparable FY 2004 appropriation of \$316,439,000.

Non-Closure Environmental Activities

Funding Schedule by Activity

(dollars in thousands)

	FY 2003	FY 2004	FY 2005	\$ Change	% Change
OR-0011Y / Nuclear Materials Stabilization and Disposition-East Tennessee Technology Park Uranium Facilities Management.....	11,084	12,260	7,987	-4,273	-34.9%
PA-0011 / Nuclear Materials Stabilization and Disposition-Paducah Uranium Facilities Management.....	7,214	4,209	4,931	722	17.2%
PA-0011X / Nuclear Materials Stabilization and Disposition-Depleted Uranium Hexafluoride Conversion.....	1,104	56,656	51,000	-5,656	-10.0%
PA-0101 / Paducah Contract/Post-Closure Liabilities/Administration (Non-Defense).....	0	472	0	-472	-100.0%
PO-0011 / Nuclear Materials Stabilization and Disposition-Portsmouth Other Uranium Facilities Management.....	13,003	16,300	11,705	-4,595	-28.2%
PO-0011X / Nuclear Materials Stabilization and Disposition – Depleted Uranium Hexafluoride Conversion.....	1,104	44,727	51,000	6,273	14.0%
PO-0041 / Nuclear Facility Decontamination and Decommissioning-Portsmouth Gaseous Centrifuge Enrichment Plant.....	0	22,476	20,000	-2,476	-11.0%
PO-0101 / Portsmouth Cold Standby.....	92,500	114,720	98,500	-16,220	-14.1%
Total, Non-Closure Environmental Activities..	126,009	271,820	245,123	-26,697	-9.8%

Description

The Non-Closure Environmental Activities program includes activities that indirectly support the Environmental Management accelerated cleanup and closure mission and services provided by Environmental Management in support of other Departmental missions and objectives. This includes Environmental Management responsibilities at the nation’s three gaseous diffusion plants at Paducah, Kentucky; Portsmouth, Ohio; and East Tennessee Technology Park in Oak Ridge, Tennessee and the design and construction of two depleted hexafluoride conversion facilities.

Benefits

This program provides funding for non-defense related activities that indirectly support the primary EM cleanup mission. These include services provided by EM in support of other Departmental missions and objectives such as cleanup and management of the nation’s three gaseous diffusion plants and construction and operation of two depleted uranium hexafluoride conversion facilities.

(dollars in thousands)

FY 2003	FY 2004	FY 2005
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The Oak Ridge Performance Management Plan defines the end-state as removal of East Tennessee Technology Park cylinders to the Portsmouth or Paducah depleted uranium hexafluoride conversion facility by September 2007. Site infrastructure services include fire protection, utility services, environmental, safety, and health programs, real property management, power operations and maintenance, and capital improvements and repairs.

In FY 2005, the following activities are planned to support the accelerated cleanup of East Tennessee Technology Park.

- Complete annual and quadrennial visual inspections to support safe storage and off-site shipments.
- Relocate, stage, inspect, and ship approximately 1,350 depleted uranium hexafluoride cylinders to Portsmouth.
- Complete disposition of the secondary wastes generated by cylinder storage operations.
- Support the three-site uranium hexafluoride cylinder interface and transition of the program to the conversion contractor.

Metrics	FY 2003	FY 2004	FY 2005	Cumulative Complete FY 2005	Life-cycle Quantity	FY 2005 % Complete
Depleted and Other Uranium Packaged for Disposition (mt).....	0	0	0	0	56,988	0%
Enriched Uranium Packaged for Long-Term Storage (Number of Containers).....	0	0	0	0	673	0%
Low-Level and Mixed Low-Level Waste Disposed (m ³).....	0	0	0	93	93	100%

Key Accomplishments (FY 2003)/Planned Milestones (FY 2004/FY 2005)

- Completed annual and quadrennial visual inspections to support safe storage and off-site shipments (FY 2003).
- Relocated, staged, inspected, and shipped approximately 500 cylinders containing residual uranium compounds to the Nevada Test Site (FY 2003).
- Ship 1,000 uranium hexafluoride cylinders to Portsmouth, Ohio and ship 650 empty cylinders to the Nevada Test Site (September 2004).
- Continue to maintain about 5,800 uranium hexafluoride cylinders and six cylinder yards (September 2004).
- Ship 1,350 compliant cylinders to Portsmouth (September 2005).

(dollars in thousands)

FY 2003	FY 2004	FY 2005
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**PA-0011 / Nuclear Materials Stabilization and Disposition-
Paducah Uranium Facilities Management (life-cycle estimate
\$61,060K).....** **7,214** **4,209** **4,931**

This PBS scope performs surveillance and maintenance of fifteen inactive facilities, manages uranium hexafluoride cylinders, provides support for the report to Congress on environmental, safety, and health, and manages legacy polychlorinated biphenyl contamination. Surveillance and maintenance of inactive facilities prevents significant deterioration of the buildings and/or support systems until the decommissioning, decontamination, and demolition is complete and avoids exposure to unsafe conditions for personnel requiring access for compliance inspections, housekeeping assessments, corrective maintenance, fire protection, security, and/or emergency response.

Safe storage of approximately 38,000 uranium hexafluoride cylinders is maintained by a cylinder inspection program to monitor the physical condition and record defects of the cylinders. Activities include: 1) radiological monitoring re-stacking and relocating cylinders to improve cylinder storage conditions; 2) preventive and corrective maintenance on the cylinders, eleven cylinder yards, and cylinder handling equipment; and 3) configuration control of the cylinder inventory. Management of the uranium hexafluoride cylinders will continue until FY 2007 when turnover to the depleted uranium hexafluoride conversion facility operator occurs. This assumes that the conversion facility will start operations in FY 2008.

Another activity covered by this PBS scope includes management of polychlorinated biphenyls. Gaskets impregnated with polychlorinated biphenyl were used in the ventilation duct systems of the Paducah Gaseous Diffusion Plant, and operations have resulted in leakage of polychlorinated biphenyl contaminated lubrication oils used in motor and compressor bearings. The polychlorinated biphenyl project includes activities related to and maintaining compliance with the Toxic Substances Control Act (40 CFR 761), Uranium Enrichment Toxic Substances Control Act Federal Facilities Compliance Agreement of 1992, as well as DOE Orders and other applicable requirements. Polychlorinated biphenyl activities include inspections of transformers, checks of spill sites, inspection, repair, and maintenance of troughs and collection systems, cleanup of spills, sampling and analysis of spills and equipment, and compliance reporting. The compliance measures of the Uranium Enrichment Toxic Substances Control Act Federal Facilities Compliance Agreement of 1992 have varied completion requirement dates. The measures having the latest completion dates are the removal of gaskets, ducts and hydraulics systems which must be complete between the facility decommissioning date and ten years after that date. The resolution of polychlorinated biphenyl storage issues must be completed by 2016 or within ten years of starting storage. Periodic polychlorinated biphenyl air sampling in the process buildings must continue until one year after the facility is shut down. As of the end of FY 2003, approximately 30,200 cylinders have been relocated from gravel yards to improved storage on new concrete yards (79 percent complete). Current progress to date also includes clean up of 1,601 polychlorinated biphenyl spills.

In FY 2005, the following activities are planned to support the accelerated cleanup of Paducah.

- Continue safe and compliant surveillance and maintenance of fifteen inactive facilities and 38,000 uranium hexafluoride cylinders.
- Inspect and maintain the polychlorinated biphenyl collection and containment system.

(dollars in thousands)

FY 2003	FY 2004	FY 2005
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- Relocate 2,900 cylinders from gravel yards to improved storage on new concrete yards.

Metrics	FY 2003	FY 2004	FY 2005	Cumulative Complete FY 2005	Life-cycle Quantity	FY 2005 % Complete
Enriched Uranium Packaged for Long-Term Storage (Number of Containers).....	0	0	0	0	182	0%
Key Accomplishments (FY 2003)/Planned Milestones (FY 2004/FY 2005)						
<ul style="list-style-type: none"> Provided safe and compliant surveillance and maintenance of fifteen inactive facilities and 38,000 uranium hexafluoride cylinders and eleven cylinder yards (FY 2003). Inspected and maintained the polychlorinated biphenyl collection and containment system (FY 2003). Design and construct a new cylinder storage yard (September 2004). Maintain approximately 38,000 uranium hexafluoride cylinders in a safe condition and eleven cylinder yards (September 2004/September 2005). 						

PA-0011X / Nuclear Materials Stabilization and Disposition- Depleted Uranium Hexafluoride Conversion (life-cycle estimate \$1,281,846K).....

1,104 56,656 51,000

Approximately 700,000 metric tonnes of depleted uranium hexafluoride are stored in 64,000 cylinders at the Paducah and Portsmouth Gaseous Diffusion Plant sites and at the East Tennessee Technology Park. This PBS scope will design, permit, build, and operate for five years one depleted uranium hexafluoride conversion facility, at the Paducah Gaseous Diffusion Plant site. The facility will convert depleted uranium hexafluoride into a more stable form, a depleted uranium oxide (U₃O₈), suitable for reuse or disposition. The U₃O₈ will be disposed of at Envirocare, the hydrogen fluoride by-products will be sold on the commercial market, and the empty cylinders will either be crushed and sent to disposal or reused.

This project also includes surveillance and maintenance of all cylinders during conversion of the existing stockpile, which should take an additional 20 years. The conversion facility operator will assume responsibility of maintenance and surveillance of all depleted uranium hexafluoride cylinders in FY 2007, one year prior to operation. The conversion facilities will undergo decontamination and decommissioning around 2030 after all depleted uranium hexafluoride has been converted. This PBS includes the following amounts for line item construction project 02-U-101, Depleted Uranium Hexafluoride Conversion Project: FY 2003 – \$0; FY 2004 - \$55,073,000; FY 2005 - \$46,300,000.

In FY 2005, the following activities are planned to support the accelerated cleanup of Paducah.

- Complete final design and continue construction activities.

(dollars in thousands)

FY 2003	FY 2004	FY 2005
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Metrics	FY 2003	FY 2004	FY 2005	Cumulative Complete FY 2005	Life-cycle Quantity	FY 2005 % Complete
Depleted and Other Uranium Packaged for Disposition (mt)...	0	0	0	0	453,312	0%
Key Accomplishments (FY 2003)/Planned Milestones (FY 2004/FY 2005)						
<ul style="list-style-type: none"> ▪ Completed Conceptual Design Report and started Preliminary Design (FY 2003). ▪ Start depleted uranium hexafluoride conversion facilities final design (November 2003). ▪ Start facility construction (July 2004). ▪ Complete final project design (July 2005). ▪ Continue construction (September 2005). 						

PA-0101 / Paducah Contract/Post-Closure

Liabilities/Administration (Non-Defense) (life-cycle estimate \$TBD).....

0 472 0

- This activity is funded under the Uranium Enrichment Decontamination and Decommissioning Fund (PA-0102) in FY 2005.

Metrics	FY 2003	FY 2004	FY 2005	Cumulative Complete FY 2005	Life-cycle Quantity	FY 2005 % Complete
No metrics associated with this PBS.....						
Key Accomplishments (FY 2003) / Planned Milestones (FY 2004/ FY 2005)						
<ul style="list-style-type: none"> ▪ Met required obligations to former Paducah Gaseous Diffusion Plant work force (FY 2003). 						

PO-0011 / Nuclear Materials Stabilization and Disposition- Portsmouth Other Uranium Facilities Management (life-cycle estimate \$93,429K).....

13,003 16,300 11,705

This PBS scope manages the Highly Enriched Uranium Program, performs surveillance and maintenance on the former Uranium Program facilities, manages approximately 19,000 uranium hexafluoride cylinders, and manages legacy polychlorinated biphenyl contamination. The Highly Enriched Uranium Program activities will continue until a decision is made to place highly enriched uranium process building X-326 into the decontamination and decommissioning program, currently estimated to be beyond 2010. The Highly Enriched Uranium Program stores, ships, treats, and disposes

(dollars in thousands)

FY 2003	FY 2004	FY 2005
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of filter and incinerator ashes; disposes of the remaining highly enriched uranium materials (i.e. oils, acids, and alumina) stored in X-326 L-Cage; provides interim storage of highly enriched uranium materials at the Nuclear Fuel Service Facility; performs engineering design, special equipment procurement, construction, and safety/regulatory reviews of small-scale highly enriched uranium-uranium hexafluoride for the Oxide Conversion Facility at Nuclear Fuel Service Facility; performs surveillance and maintenance on the 158 permanently shut down cells in X-326; and operates Enriched Uranium-DOE Materials Storage Area-12. Surveillance and maintenance of DOE leased and non-leased facilities, two cylinder yards, inventories of Special Nuclear Materials, and technical support to cold standby activities are performed.

Management of depleted uranium hexafluoride cylinders will continue until FY 2007, when turnover to the depleted uranium hexafluoride conversion facility operator occurs. Another activity covered by this PBS scope includes management of polychlorinated biphenyls. Gaskets impregnated with polychlorinated biphenyl were used in the ventilation duct systems of the Portsmouth Gaseous Diffusion Plant, and operations have resulted in leakage of polychlorinated biphenyl contaminated lubrication oils used in motor and compressor bearings. The polychlorinated biphenyl project includes activities related to and maintaining compliance with the Toxic Substances Control Act (40 CFR 761), Uranium Enrichment Toxic Substances Control Act Federal Facilities Compliance Agreement of 1992, as well as DOE Orders and other applicable requirements. Polychlorinated biphenyl activities include inspections of transformers, checks of spill sites, inspection, repair, and maintenance of troughs and collection systems, cleanup of spills, sampling and analysis of spills and equipment, and compliance reporting.

The compliance measures of the Uranium Enrichment Toxic Substances Control Act Federal Facilities Compliance Agreement of 1992 have varied completion requirement dates. The measures having the latest completion dates are the removal of gaskets, ducts and hydraulics systems, which must be complete between the facility decommissioning date and ten years after that date. The resolution of polychlorinated biphenyl storage issues must be completed by 2016 or within ten years of starting storage. Periodic polychlorinated biphenyl air sampling in the process buildings must continue until one year after the facility is shut down.

In FY 2005, the following activities are planned to support the accelerated cleanup of Portsmouth.

- Management of legacy polychlorinated biphenyl waste in compliance with Toxic Substance Control Act, Federal Facilities Compliance Agreement.
- Surveillance and maintenance of former Uranium Program facilities.
- Technical support to DOE for Portsmouth enhanced cold standby activities.
- Surveillance and maintenance of 158 permanently shutdown cells in X-326.
- Surveillance and maintenance of Enriched Uranium-DOE Material Storage Area 12.
- Safe and secure storage of highly enriched uranium materials at Nuclear Fuel Services and remaining materials at X-326 L-cage.
- Continue preparatory activities for highly enriched uranium processing at Nuclear Fuel Services.
- Management of approximately 19,000 uranium hexafluoride cylinders.

(dollars in thousands)

FY 2003	FY 2004	FY 2005
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- Receipt and storage of uranium hexafluoride cylinders from East Tennessee Technology Park.

Metrics	FY 2003	FY 2004	FY 2005	Cumulative Complete FY 2005	Life-cycle Quantity	FY 2005 % Complete
Enriched Uranium Packaged for Long-Term Storage (Number of Containers).....	0	0	0	0	1,450	0%

Key Accomplishments (FY 2003) / Planned Milestones (FY 2004/ FY 2005)

- Completed characterization for processing of the highly enriched uranium material currently stored at the Nuclear Fuel Service Facility (FY 2003).
- Initiated receipt of East Tennessee Technology Park depleted uranium hexafluoride cylinders for storage and transition to Conversion contractor (FY 2003).
- Begin to receive 500 uranium hexafluoride cylinders from the East Tennessee Technology Park (September 2004).
- Maintain existing and additional uranium hexafluoride cylinders received from East Tennessee Technology Park in a safe condition (September 2004).
- Maintain safe and compliant storage on existing and additional uranium hexafluoride cylinders received from East Tennessee Technology Park prior to transition to conversion contractor (March 2005).
- Management of approximately 19,000 uranium hexafluoride cylinders until transfer to conversion contractor (FY 2003/ September 2004/September 2005).

PO-0011X / Nuclear Materials Stabilization and Disposition- Depleted Uranium Hexafluoride Conversion (life-cycle estimate \$908,593K)..... 1,104 44,727 51,000

Approximately 700,000 metric tonnes of depleted uranium hexafluoride are stored in 64,000 cylinders at the Paducah and Portsmouth Gaseous Diffusion Plant sites and at the East Tennessee Technology Park. This PBS scope will design, permit, build, and operate for five years one depleted uranium hexafluoride conversion facility, at the Portsmouth Gaseous Diffusion Plant site. The facility will convert depleted uranium hexafluoride into a more stable form, a depleted uranium oxide, suitable for reuse or disposition. The depleted uranium oxide will be disposed of at Envirocare, the hydrogen fluoride by-products will be sold on the commercial market, and the empty cylinders will be crushed and sent to disposal or reuse.

(dollars in thousands)

FY 2003	FY 2004	FY 2005
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This project also includes surveillance, maintenance and transport of cylinders during conversion of the existing stockpile, which should take an additional 20 years. The conversion facility operator will assume responsibility of maintenance and surveillance of all depleted uranium hexafluoride cylinders in FY 2007, one year prior to operation. The conversion facilities will undergo decontamination and decommissioning around 2030 after all depleted uranium hexafluoride has been converted. This PBS includes the following amounts for line item construction project 02-U-101, Depleted Uranium Hexafluoride Conversion Project: FY 2003 - \$0; FY 2004 - \$43,144,000; FY 2005 - \$46,300,000.

In FY 2005, the following activities are planned to support the accelerated cleanup at Portsmouth.

- Complete final design and continue construction activities.

Metrics	FY 2003	FY 2004	FY 2005	Cumulative Complete FY 2005	Life-cycle Quantity	FY 2005 % Complete
Depleted and Other Uranium Packaged for Disposition (mt).....	0	0	0	0	205,567	0%
Key Accomplishments (FY 2003) / Planned Milestones (FY 2004/ FY 2005)						
<ul style="list-style-type: none"> ▪ Completed Conceptual Design Report (FY 2003). ▪ Started Preliminary Design (FY 2003). ▪ Start depleted uranium hexafluoride conversion facilities final design (November 2003). ▪ Start facility construction (July 2004). ▪ Complete A-E Work (December 2004). ▪ Complete final project design (July 2005). ▪ Continue construction (September 2005). 						

PO-0041 / Nuclear Facility Decontamination and Decommissioning-Portsmouth Gaseous Centrifuge Enrichment Plant (life-cycle estimate \$80,000K).....

0 22,476 20,000

This PBS scope accelerates cleanup of the Gaseous Centrifuge Enrichment Plant facilities for use by the United States Enrichment Corporation in the development of an advanced uranium enrichment process. On December 4, 2002, the United States Enrichment Corporation announced that it will locate its lead cascade centrifuge uranium test facility at the Portsmouth site. This announcement was based on the June 17, 2002, agreement between DOE and the United States Enrichment Corporation where DOE committed to work with the United States Enrichment Corporation in its development and deployment of an advanced centrifuge uranium enrichment plant by 2010-2011. Part of this commitment involves the cleanup of the Gas Centrifuge Enrichment Plant facilities at Portsmouth.

(dollars in thousands)

FY 2003	FY 2004	FY 2005
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The Gas Centrifuge Enrichment Plant cleanup program is expected to cover a period from FY 2004 through FY 2007, and includes cleanout of process building X-3001, modification of the area around the heating plant boiler in process building X-3002, Resource Conservation and Recovery Act closure of recycle/assembly building X-7725, facility repairs and modifications to XT-847 (warehouse for future Resource Conservation and Recovery Act permitted storage area and office space for waste management operations), facility repairs and modifications to X-7721 (maintenance, stores and training building), relocation of DOE operations, and project management and support.

In FY 2005, the following activities are planned to support the accelerated cleanup of Portsmouth.

- Relocate the Bechtel Jacobs Corporation, DOE and other subcontractor personnel from X-7725.
- Perform Resource Conservation and Recovery Act closure in the X-7725 facility.
- Engineer the heating plant removal/relocation.
- Ship and dispose of centrifuges and other miscellaneous material.

Metrics	FY 2003	FY 2004	FY 2005	Cumulative Complete FY 2005	Life-cycle Quantity	FY 2005 % Complete
No metrics associated with this PBS.....						
Key Accomplishments (FY 2003) / Planned Milestones (FY 2004/FY 2005)						
<ul style="list-style-type: none"> ▪ Complete necessary environmental documentation sufficient to begin cleanup and equipment removal (September 2004). ▪ Close the X-7725 facility in accordance with the Resource Conservation and Recovery Act (September 2005). 						

PO-0101 / Portsmouth Cold Standby (life-cycle estimate \$572,478K)..... 92,500 114,720 98,500

The Department decided on March 1, 2001, to place Portsmouth Gaseous Diffusion Plant in cold standby after the United States Enrichment Corporation decided to cease the production of enriched uranium at the plant. This PBS scope maintains the inactive gaseous diffusion plant equipment in cold standby so that operations can be restarted within eighteen to twenty-four months, if necessary. Activities include purging the cascade process equipment of uranium hexafluoride, buffering with dry air, maintaining the freon inventory, and heating several buildings on the site to prevent damage from freezing in winter.

In FY 2005, the Government intends to continue operating the shipping and transfer facility to remove technetium-99 from contaminated uranium, contingent upon reaching a barter arrangement with the United States Enrichment Corporation. The arrangement will utilize assets managed by the Office of Nuclear Energy, Science and Technology. The Department is evaluating the need for authorization to pursue such a barter arrangement to carry out this work.

(dollars in thousands)

FY 2003	FY 2004	FY 2005
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The Portsmouth plant will be taken out of the cold standby state and transitioned to decontamination and decommissioning pending the successful development of new technology for enriching uranium. The United States Enrichment Corporation announced in January 2004 that the Portsmouth site was chosen as the facility to use the new centrifuge processing technology to enrich uranium for nuclear power plant reactors. The Portsmouth plant is currently being maintained in cold standby status under a contract with the United States Enrichment Corporation.

In FY 2005, the following activities are planned.

- Maintain 3 million separative work units capability in cold standby.
- Continue enhanced cold standby.
- Continue technetium-99 removal.

Metrics	FY 2003	FY 2004	FY 2005	Cumulative Complete FY 2005	Life-cycle Quantity	FY 2005 % Complete
No metrics associated with this PBS.....						
Key Accomplishments (FY 2003) / Planned Milestones (FY 2004/FY2005)						
<ul style="list-style-type: none"> ▪ Continue to operate the shipping and transfer facilities to remove technetium-99 from contaminated uranium inventory (FY 2003/ September 2004). ▪ Maintain the facility in enhanced cold standby status (September 2005). 						

Total, Non-Closure Environmental Activities.....	126,009	271,820	245,123
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Explanation of Funding Changes

FY 2005 vs. FY 2004 (\$000)

OR-0011Y / Nuclear Materials Stabilization and Disposition-East Tennessee Technology Park Uranium Facilities Management

- Decrease is due to completion of disposition of the debris wastes generated by cylinder storage operations and less surveillance and maintenance because of the shipment off-site of over 1,500 cylinders..... -4,273

FY 2005 vs. FY 2004 (\$000)

PA-0011 / Nuclear Materials Stabilization and Disposition-Paducah Uranium Facilities Management

- Increase for cost of relocating 2,900 cylinders from gravel yards to new concrete yards..... 722

PA-0011X / Nuclear Materials Stabilization and Disposition-Depleted Uranium Hexafluoride Conversion

- Decrease is due to a resequencing of construction activities..... -5,656

PA-0101 / Paducah Contract/Post-Closure Liabilities/Administration (Non-Defense)

- This activity is transferred to the Uranium Enrichment Decontamination and Decommissioning Fund appropriation beginning in FY 2005..... -472

PO-0011 / Nuclear Materials Stabilization and Disposition-Portsmouth Other Uranium Facilities Management

- Decrease is due to highly-enriched uranium storage costs being eliminated after the first quarter of the fiscal year pending uranium processing subcontract award at Nuclear Fuel Services in FY 2004..... -4,595

PO-0011X / Nuclear Materials Stabilization and Disposition-Depleted Uranium Hexafluoride Conversion

- Increase is due to a resequencing of construction activities..... 6,273

PO-0041 / Nuclear Facility Decontamination and Decommissioning – Portsmouth Gaseous Centrifuge Enrichment Plant

- Decrease reflects resequencing of accelerated cleanup schedule..... -2,476

PO-0101 / Portsmouth Cold Standby

- Reduction reflects the Department’s intent to continue removal of technetium-99 from contaminated uranium using a barter agreement, requiring no budget authority..... -16,220

Total Funding Change, Non-Closure Environmental Activities..... -26,697

Community and Regulatory Support

Funding Schedule by Activity

(dollars in thousands)

	FY 2003	FY 2004	FY 2005	\$ Change	% Change
CH-BRNL-0100 / Brookhaven Community and Regulatory Support.....	0	660	50	-610	-92.4%
PA-0100 / Paducah Community and Regulatory Support (Non-Defense).....	0	331	0	-331	-100.0%
VL-FOO-0100-N / Oakland Community and Regulatory Support (Non-Defense).....	20	39	40	1	2.6%
Total, Community and Regulatory Support....	20	1,030	90	-940	-91.3%

Description

The Community and Regulatory Support program includes activities that are not directly related to on-the-ground cleanup results but are none-the-less integral to EM's ability to conduct cleanup at our sites (e.g., Agreements In Principle with state regulators and tribal nations, Site Specific Advisory Boards, etc.). These important activities must be maintained at an appropriate funding level to support stakeholder participation, and ensure that maximum funding is directed to real cleanup.

Benefits

This program provides funding for non-defense related activities that indirectly support on-the-ground cleanup and are integral to DOE's ability to conduct cleanup at its sites.

In particular, these activities promote active involvement in EM's planning and decision-making processes. In addition, the objective is to provide state, tribal, and local governments and other interested stakeholders with opportunities for meaningful involvement in managing the cleanup and closure of DOE's non-defense sites.

By providing opportunities for active involvement in DOE's planning processes, these activities facilitate and increase stakeholder communication and minimize misunderstanding. These activities also provide forums where issues can be discussed and resolved in an efficient and cooperative manner which decreases the chances of costly legal or regulatory actions being taken against the Department.

Funding by Site

(dollars in thousands)

	FY 2003	FY 2004	FY 2005	\$ Change	% Change
Chicago					
Brookhaven National Laboratory.....	0	660	50	-610	-92.4%
NNSA Service Center.....	20	39	40	1	2.6%
Paducah					
Paducah Gaseous Diffusion Plant.....	0	331	0	-331	-100.0%
Total, Community and Regulatory Support...	20	1,030	90	-940	-91.3%

Detailed Justification

(dollars in thousands)

	FY 2003	FY 2004	FY 2005
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CH-BRNL-0100 / Brookhaven Community and Regulatory Support (life-cycle estimate \$3,902K)..... 0 660 50

In accordance with provisions of the Brookhaven National Laboratory Comprehensive Environmental Response, Compensation, and Liability Act Interagency Agreement between DOE, the United States Environmental Protection Agency, and the New York State Department of Environmental Conservation, for addressing remedial activities at Brookhaven National Laboratory, this PBS assists New York State in carrying out its oversight responsibilities under the Interagency Agreement. This project will continue through FY 2005, when the Comprehensive Environmental Response, Compensation, and Liability Act cleanup activities, as identified in the Brookhaven National Laboratory Performance Management Plan (August 2002), are to be completed.

In FY 2005, the following activities are planned to support the accelerated cleanup of Brookhaven.

- The New York State Department of Environmental Conservation will continue to ensure that the impacts to public health, welfare, or the environment associated with past and present activities at the Site are thoroughly investigated and appropriate Remedial Action(s) are taken, as necessary, to protect the public health, welfare, or the environment. The New York State Department of Environmental Conservation will oversee implementation of the remaining interagency agreement related remedies at the site.

Metrics	FY 2003	FY 2004	FY 2005	Cumulative Complete FY 2005	Life-cycle Quantity	FY 2005 % Complete
No metrics associated with this PBS.....						

**Non-Defense Environmental Services/
Community and Regulatory Support**

FY 2005 Congressional Budget

(dollars in thousands)

FY 2003	FY 2004	FY 2005
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Key Accomplishments (FY 2003)/Planned Milestones (FY 2004/FY 2005)

- Ensured that Removal and Remedial Actions at the Site will be in compliance with federal and state applicable or relevant and appropriate requirements and applicable federal and state hazardous waste laws and regulations (FY 2003).
- Provided involvement in the initiation, development, selection and enforcement of Remedial Actions to be undertaken at Brookhaven National Laboratory, including review of all applicable data, and the development of studies, reports and action plans, and oversees implementation of the selected Removal Actions, Operable Units and Remedial Actions, and the continued operation and maintenance of the implemented Remedial Action(s) (FY 2003).
- Provide involvement in the initiation, development, selection and enforcement of Remedial Actions to be undertaken at Brookhaven National Laboratory, including review of all applicable data, and the development of studies, reports and action plans, and oversees implementation of the selected Removal Actions, Operable Units and Remedial Actions, and the continued operation and maintenance of the implemented Remedial Action(s) (September 2004).
- DOE review and grant amendment, post-buildout phase (September 2005).

**PA-0100 / Paducah Community and Regulatory Support
(Non-Defense) (life-cycle estimate \$10,203K).....**

0 331 0

This PBS is being funded under PBS PA-0103 in the Uranium Enrichment Decontamination and Decommissioning Fund appropriation.

- Not Applicable

Metrics	FY 2003	FY 2004	FY 2005	Cumulative Complete FY 2005	Life-cycle Quantity	FY 2005 % Complete
No metrics associated with this PBS.....						
Key Accomplishments (FY 2003)/Planned Milestones (FY 2004/FY 2005)						
<ul style="list-style-type: none"> ▪ Provided financial support to the Commonwealth of Kentucky as required by the Agreement-in-Principle (FY 2003). 						

(dollars in thousands)

FY 2003	FY 2004	FY 2005
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VL-FOO-0100-N / Oakland Community and Regulatory Support (life-cycle estimate \$2,470K)..... 20 39 40

This project provides funding for grants to the Regional Water Quality Control Board and California Department of Toxic Substances Control Board for oversight of the Resource Conservation and Recovery Act and Comprehensive Environmental Response, Compensation, and Liability Act programs at the Laboratory for Environmental Health-Related Research and to Indian Nations for grants supporting activities at tribal universities and colleges related to environmental cleanup.

In FY 2005, the following activities are planned to support the accelerated cleanup of California Sites.

- Continue support of State regulatory oversight of EM programs at non-Defense sites. This includes the review of data and documentation associated with waste management and environmental restoration activities. Also includes active participation in review and endorsement of EM accelerated site closure proposals by DOE when requested.

Metrics	FY 2003	FY 2004	FY 2005	Cumulative Complete FY 2005	Life-cycle Quantity	FY 2005 % Complete
No metrics associated with this PBS.....						
Key Accomplishments (FY 2003)/Planned Milestones (FY 2004/FY 2005)						
<ul style="list-style-type: none"> ▪ Grants are paid annually to the State of California regulatory agencies (as specified in the Federal Facility Agreement) for participation and oversight of the cleanup programs (September 2004/September 2005). 						

Total, Community and Regulatory Support..... 20 1,030 90

Explanation of Funding Changes

FY 2005 vs. FY 2004 (\$000)

CH-BRNL-0100 / Brookhaven Community and Regulatory Support

- | | |
|---|------|
| ▪ Decrease in Interagency Agreement resources due to the completion of soil and sediment cleanup, and groundwater treatment system construction and start-up activities, at the end of FY 2005..... | -610 |
|---|------|

PA-0100 / Paducah Community and Regulatory Support (Non-Defense)

- | | |
|---|------|
| ▪ This activity is being funded in the Uranium Enrichment Decontamination and Decommissioning Fund appropriation..... | -331 |
|---|------|

VL-FOO-0100-N / Oakland Community and Regulatory Support (Non-Defense)

- | | |
|------------------------------|---|
| ▪ No significant change..... | 1 |
|------------------------------|---|

Total Funding Change, Community and Regulatory Support.....	-940
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Environmental Cleanup Projects

Funding Schedule by Activity

(dollars in thousands)

	FY 2003	FY 2004	FY 2005	\$ Change	% Change
RL-0042 / Nuclear Facility Decontamination and Decommissioning-Fast Flux Test Facility Project.....	35,823	43,589	46,083	2,494	5.7%
Total, Environmental Cleanup Projects.....	35,823	43,589	46,083	2,494	5.7%

Description

The Environmental Cleanup Projects program provides for surveillance and maintenance and eventual decontamination and decommissioning of the Fast Flux Test Facility at the Hanford Site in Richland, Washington. All future excess facilities from other Departmental programs will be transferred to the Office of Future Liabilities.

Benefits

This program provides funding for surveillance and maintenance and eventual decontamination and decommissioning.

Fast Flux Test Facility will undergo surveillance and maintenance to ensure safety. As the Fast Flux Test Facility is decontaminated and decommissioned, the risk to human health and the environment is greatly reduced. In addition, when facility decontamination and decommissioning is completed the financial resources needed for facility surveillance and maintenance will no longer be required.

Funding by Site

(dollars in thousands)

	FY 2003	FY 2004	FY 2005	\$ Change	% Change
Richland					
Hanford Site.....	35,823	43,589	46,083	2,494	5.7%
Total, Environmental Cleanup Projects.....	35,823	43,589	46,083	2,494	5.7%

Detailed Justification

(dollars in thousands)

FY 2003	FY 2004	FY 2005
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RL-0042 / Nuclear Facility Decontamination and Decommissioning-Fast Flux Test Facility Project (life-cycle estimate \$809,843K)..... **35,823 43,589 46,083**

A Record of Decision, issued January 26, 2001, established that the Fast Flux Test Facility would be permanently deactivated, and a subsequent decision made by the Secretary of Energy on December 19, 2001, concluded that the Fast Flux Test Facility will be permanently closed. On November 8, 2002, a legal action was filed in federal court to halt the sodium drain activity. After a five month work stoppage due to a court injunction, deactivation activities at the Fast Flux Test Facility were resumed in early April 2003. Sodium drainage from the plant’s secondary system, which constitutes 34 percent of the sodium inventory, was completed and activities related to fuel washing, removal, and storage have been initiated.

This PBS deactivates and decommissions the Fast Flux Test Facility: a 400-megawatt (thermal) liquid-metal (sodium) cooled fast neutron flux nuclear test reactor and forty-nine support buildings and structures arranged around the central reactor containment building. The deactivation activities consist of: reactor defueling; washing, dry packaging, storage (in storage casks), and disposition of 408 reactor fuel assemblies; the draining and disposition of 195,000 gallons of sodium in operating plant systems and 65,000 gallons of sodium in the Sodium Storage Facility; and the shutdown of 73 plant auxiliary systems. The final facility disposition activity is typically decommissioning where the facility will be taken to its ultimate end-state through decontamination and/or dismantlement to demolition or entombment.

The facility end-state for the Fast Flux Test Facility containment building, including the defueled reactor vessel, will be determined following the appropriate environmental analysis process. All other support structures will be demolished to three feet below grade. As of September 30, 2003, the reactor defueling has been completed, the fuel assemblies have been washed, and seven interim Storage Casks have been loaded. The metal fuel assemblies are planned to be shipped in FY 2007 to the Argonne National Laboratory – West for consolidation of metal fuel. By the end of FY 2009 deactivation is expected to be completed and the decommissioning to be completed by around 2015.

In FY 2005, the following activities associated with combined deactivation and decommissioning are planned.

- Continue receipt of 22 Interim Storage Casks from the cask fabrication contractor.
- Continue washing, drying, and offloading reactor fuel to above ground storage.
- Continue pin processing of the specialty fuel assemblies in the Interim Examination and Maintenance cell. Two of the five assemblies requiring disassembly are planned to be completed in FY 2005. The assemblies require disassembly due to failed fuel pins, mixture of type of fuels, and assembly configuration.
- Complete the Environmental Impact Statement and Record of Decision for the decommissioning and dismantlement of the Fast Flux Test Facility.

(dollars in thousands)

FY 2003	FY 2004	FY 2005
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- Complete the drain of the sodium potassium cooling loop in the Fuel Storage Facility.

Metrics	FY 2003	FY 2004	FY 2005	Cumulative Complete FY 2005	Life-cycle Quantity	FY 2005 % Complete
Pu Metal/Oxide Packaged for Long-Term Storage (Number of Containers).....	0	400	0	400	400	100%
SNF Packaged for Final Disposition (MTHM).....	0	1	1	2	7	23%
Radioactive Facility Completions (Number of Facilities).....	0	0	0	0	23	0%

Key Accomplishments (FY 2003)/Planned Milestones (FY 2004/FY 2005)

- Completed Closed Loop Ex-vessel Handling Machine control upgrades (FY 2003).
- Completed Sodium Removal System control upgrades (FY 2003).
- Completed Solid Waste Cask modifications (FY 2003).
- Completed fuel off-load readiness review (FY 2003).
- Re-initiated fuel wash and off-load operations (FY 2003).
- Completed Secondary Heat Transport System sodium drain to the Sodium Storage Facility (approximately 66,000 gallons) (FY 2003).
- Awarded the contract for 27 additional custom-fabricated dry storage casks, required to complete the disposition of reactor fuel (FY 2003).
- Complete washing and packaging of one metric tonne heavy metal of Fast Flux Test Facility Spent Nuclear Fuel for disposition (November 2003).
- Fast Flux Test Facility in containment sodium potassium system drain (August 2004).
- Complete cleaning 21 additional reactor fuel assemblies and have them staged for packaging in storage/shipping casks for disposition (September 2004).
- Complete washing and packaging a second metric tonne heavy metal of Fast Flux Test Facility Spent Nuclear Fuel for disposition (December 2004).
- Complete sodium drain of the primary heat transport system loops and the reactor vessel (September 2005).

Total, Environmental Cleanup Projects.....	35,823	43,589	46,083
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Explanation of Funding Changes

FY 2005 vs. FY 2004 (\$000)

RL-0042 / Nuclear Facility Decontamination and Decommissioning-Fast Flux Test Facility

<ul style="list-style-type: none">▪ Increase reflects the procurement of additional interim storage casks for reactor fuel storage and acceleration of decommissioning work scope associated with reactor fuel washing and offload, pin processing operations and sodium and sodium potassium draining.....	2,494
Total Funding Change, Environmental Cleanup Projects.....	2,494

Capital Operating Expenses and Construction Summary

Construction Projects

(dollars in thousands)

Total Estimated Cost (TEC)	Prior-Year Appropriations	FY 2003	FY 2004	FY 2005	Unappropriated Balance
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Non-Defense Environmental Services

Non-Closure Environmental Activities

02-U-101, Depleted Uranium
Hexafluoride Conversion Project,
Paducah/Portsmouth, PA 0011X/PO-
0011X.....

375,263	31,635*	0	98,217	92,600	152,811
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Total, Non-Closure Environmental
Activities.....

375,263	0	0	98,217	92,600	152,811
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*Includes \$21,635,000 of funds provided through Memorandum of Agreement between DOE and the United States Enrichment Corporation dated June 30, 1998.

02-U-101, Depleted Uranium Hexafluoride Conversion Project Paducah, Kentucky and Portsmouth, Ohio (PA-0011X/PO-0011X)

(Changes from FY 2004 Congressional Budget Request are denoted with a vertical line [|] in the left margin.)

Significant Changes

- The construction schedule has been resequenced causing a completion slippage from 3Q FY 2007 to 2Q FY 2008. This has resulted in a TPC increase of \$72,746,000 from \$731,572,000 to \$804,318,000.

1. Construction Schedule History

(Based on Contract Period from August 2002 to March 2013)

	Fiscal Quarter				Total Estimated Cost	Total Project Cost
	A-E Work Initiated	A-E Work Completed	Physical Construction Start	Physical Construction Complete		
FY 2001 Budget Request <i>(Preliminary Estimate)</i>	1Q 2002	3Q 2003	2Q 2004	4Q 2005	(\$000) 365,000	(\$000) 461,800
FY 2002 Budget Request	“	“	“	“	365,000	461,800
FY 2004 Budget Request.....	1Q 2003	1Q 2005	3Q 2004	3Q 2007	296,460	731,572
FY 2005 Budget Request.....	“	“	“	2Q 2008	375,263	804,318

2. Financial Schedule

Fiscal Year	MOA	Appropriations	Obligations	Costs
2001	0	0 ^a	0	0
2002	5,000	10,000	15,000	0
2003	9,290	0 ^b	9,290	18,599
2004	7,345	98,225 ^c	105,570	99,836
2005	0	92,600	92,600	92,400
2006	0	85,803	85,803	70,489
2007	0	67,000	67,000	82,366
2008	0	0	0	11,573
2009	0	0	0	0
2010	0	0	0	0
2011	0	0	0	0
2012	0	0	0	0
2013	0	0	0	0
Total	21,635	353,628	375,263	375,263

3. Project Description, Justification and Scope

Beginning with the Manhattan Project during World War II, large quantities of uranium were enriched for national defense and civilian purposes. Uranium enrichment by DOE and its predecessor agencies was accomplished using gaseous diffusion technology, in which gaseous uranium hexafluoride (UF₆) diffuses through a porous barrier resulting in a stream of UF₆ enriched in Uranium 235 (235U) and a stream of UF₆ depleted in 235U. During the last 5 decades in which uranium enrichment took place, the depleted UF₆ accumulated as a byproduct of the enrichment process.

This legacy of approximately 700,000 metric tons of depleted uranium hexafluoride (DUF₆) is currently stored at the Paducah site in Kentucky, the Portsmouth site in Ohio, and the East Tennessee Technology Park in Tennessee (formerly known as the K-25 site). This DUF₆ inventory is stored outdoors in about 64,000 large steel cylinders, typically 12 feet long by 4 feet in diameter. Approximately 38,000 cylinders are stored at the Paducah, 19,000 at the Portsmouth, and 6,300 at the East Tennessee Technology Park.

The mission of the DUF₆ Conversion Project is to provide for the conversion of the DOE DUF₆ inventory to a more stable chemical form suitable for beneficial use or disposal. The project will provide for the design and construction of conversion facilities at Paducah and Portsmouth; cylinder surveillance and maintenance at all three sites; transport of cylinders; operation of the Paducah and Portsmouth facilities to convert the DUF₆ inventory; disposal or reuse of all converted DUF₆, byproducts, and wastes; and for storage of low enriched uranium and natural assay uranium included in the inventory.

^a In FY 2001 operating funding of \$3,306,000 was received

^b In FY 2003 operating funding of \$2,208,000 was received

^c In FY 2004 operating funding of \$3,158,000 for a total of \$101,383,000

The project follows directly from the DOE Record of Decision for Long-Term Management and Use of Depleted Uranium Hexafluoride (issued in August 1999), namely to begin conversion of the DUF6 inventory as soon as possible. This project is consistent with the Final Plan for the Conversion of Depleted Uranium Hexafluoride, which the Department submitted to Congress in July 1999 in response to Public Law 105-204 that required development of a plan for processing and treating the DUF6 and called for the construction of conversion plants at Paducah and Portsmouth. Scheduling is based on meeting a construction start date of July 31, 2004, per Public Law 107-206.

Additional justification for this project is the desire to eliminate any safety hazards involving cylinder integrity. Because of advanced age and storage conditions, some of the cylinders holding DUF6 show evidence of external corrosion, which could result in cylinder breaching. DUF6 is not readily released from a breached cylinder because the material is a solid at ambient temperatures and pressures, and it reacts with the cylinder iron to form a dense plug that limits the release. However, when a cylinder breach is found, the cylinder is repaired or its contents are transferred to a new cylinder. While these mitigation activities continue to maintain the stability of the material, a cylinder breach poses a potential environmental impact, and the maintenance work creates a possible safety hazard. Through conversion of the DUF6 to more stable forms, this project will significantly reduce potential environmental and safety hazards.

Since 1990, the DOE has conducted an active cylinder management program at the three sites to minimize risks to workers, the public, and the environment. The activities of the management program include conducting annual cylinder storage inspections; moving cylinders to properly spaced storage locations on upgraded, concrete storage yards; coating cylinders to inhibit corrosion; and developing and implementing options to repair cylinders exhibiting accelerated corrosion. This effort is consistent with the consent agreements between the Department and the States of Ohio and Tennessee, and Recommendation 95-1 of the Defense Nuclear Facility Safety Board.

The scope of this project is to design, construct, and operate two conversion facilities that will be Government-owned and contractor-operated. These facilities will convert the Department's inventory of DUF6 to a more stable chemical form using the contractor's dry conversion process. This is a continuous process in which DUF6 is vaporized and converted to uranium oxide (predominantly U3O8) in a fluidized bed conversion unit. The resulting powder is collected and packaged for transportation, beneficial use/reuse, and/or disposal.

Each facility will consist of a building of approximately 55,000 square feet to house the equipment required for the dry conversion process, offices for plant personnel, and ancillary rooms. To support the conversion operations, additional buildings totaling approximately 36,500 square feet are required.

Prior to the start of conversion plant operations, the conversion contractor will assume cylinder surveillance and maintenance of the DOE inventory of DUF6, low-enrichment uranium hexafluoride, natural assay hexafluoride, and empty and heel cylinders from the former gaseous diffusion plants. The contractor will also be responsible for the disposition of conversion products, all waste forms, and empty and heel cylinders, including the planned sale of the hydrogen fluoride byproduct. The current contract includes conversion operations by this contractor. To convert the Department's entire depleted uranium inventory is expected to take a total of over 25 years of

plant operations. At the end of the initial contract, the next term of conversion operations will be recomputed and authorized under a new contract.

Plans for FY 2005 call for completing final design and continuing construction.

4. Details of Cost Estimate.

	(dollars in thousands)	
	Current Estimates	Previous Estimate
Design Phase		
Engineering, Design, and Inspection at Approximately (9.4 percent of TEC).....	35,209	32,380
Execution Management at Approximately (6.4 percent of TEC).....	24,017	21,290
Project Management at Approximately (5.6 percent of TEC).....	21,015	11,970
Subtotal, Design Phase.....	80,241	65,640
Execution Phase.....	246,022	184,560
Contingencies.....	49,000	46,260
Total, Line-Item Cost.....	375,263	296,460

5. Method of Performance

The Paducah Portsmouth Program Office will manage the current Uranium Disposition Services, LLC. (UDS) performance-based, cost-plus contract to design, construct, and operate (for a 5-year period) DUF6 conversion facilities at the Department's Gaseous Diffusion Sites in Paducah, Kentucky, and Portsmouth, Ohio.

The contract establishes performance requirements and incentives for the accomplishment of the Statement of Work. The design work is being performed on a fixed-fee basis. An incentive fee for construction will be performed by the contractor and will be paid based on the successful completion of construction and the attainment of cost and schedule targets. An award fee with incentive fee component proposed by the contractor will be paid for operation of the plants based on the quantity and cost of DUF6 processed and other associated performance requirements.

In addition to activities included within the scope of the DUF6 procurement, the Department will be performing the requisite activities to comply with the Department's directives associated with program and project management. For example, DOE Order 413.3, Program and Project Management for the Acquisition of Capital Assets, which prescribes a formal process for securing critical acquisition decisions and implementing various project management reform initiatives will be applied using the tailoring approach described in the Order.

The Department will develop and refine an integrated project schedule to plan and track activities. A life cycle baseline will then be developed to establish and control the technical scope, cost, and schedule parameters of

this project and to integrate these activities with other environmental management activities.

6. Schedule of Project Funding

(dollars in thousands)					
	Prior Years	FY 2004	FY 2005	Outyears	Total
Project Cost					
Design Phase					
Design and Management.....	18,599	15,210	1,400	0	35,209
Execution.....	0	70,789	78,000	142,265	291,054
Contingencies.....	0	13,837	13,000	22,163	49,000
Total, Line-Item.....	18,599	99,836	92,400	164,428	375,263
From Appropriations.....	10,000	86,800	92,400	164,428	353,628
From MOA Funds.....	8,599	13,036	0	0	21,635
Other Project Costs					
System Requirements Document.....	1,028	0	0	0	1,028
Conceptual Design Report.....	2,378	0	0	0	2,378
RFP Development.....	3,440	0	0	0	3,440
NEPA and Other Preparatory Work.....	5,533	0	0	0	5,533
Cylinder Overpacks/Transportation	0	600	4,107	9,217	13,924
Total Plant Operations to FY 2013.....	0	0	5,293	397,444	402,737
DOE Plant Support to FY 2013.....	0	0	0	15	15
Total, Other Project Costs.....	12,379	600	9,400	406,676	429,055
From Appropriations.....	5,514	600	9,400	400,776	416,290
From MOA Funds.....	6,865	0	0	5,900	12,765
Grand Total.....	30,978	100,436	101,800	571,104	804,318
From Appropriations.....	15,514	87,400	101,800	565,204	769,918
From MOA Funds.....	15,464	13,036	0	5,900	34,400

7. Related Annual Funding Requirements

(dollars in thousands)		
	Current Estimate	Previous Estimate
Annual facility operating costs for 20 years (all operations costs, management, fees, contingency)	70,000	0

Note: FY 2009 is the first year of full operations.

